

ABSTRACT

Introduction: Stroke is the second most common cause for increasing mortality worldwide. Calcium is known to be major mediator in ischemic neuronal cell death. Recent studies have shown that elevated serum calcium levels at admission in patients with stroke have been associated with less severe clinical deficits and with better outcomes. With this as a background, there is a need to develop reliable and viable prognostic markers that remains an important goal in the field of medical research.

Aims & objectives: To determine the serum calcium as a prognostic marker in acute ischemic stroke and correlate serum calcium with NIHSS to look for prognosis.

Methodology: A hospital based cross sectional study was done during April – September 2017 in Government Stanley medical college and hospital, Chennai. The total sample taken was 75 and the samples are selected based on simple random sampling. Structured questionnaire was used. Data collected entered in MS-EXCEL and analyzed using SPSS version 21. Results interpreted.

Results: 60% of the patients with stroke had low serum calcium, among which 55.6% belong to 61-70 years, 53.3% were of male gender, 44.4% alcoholic, 42.4% smoker, 53.3% were diabetic and 57.8% were hypertensives, 95.6% had speech disturbances. Significant association

was noted between serum calcium level with the risk factors such as diabetes and hypertension, age and gender ($p < 0.05$). Pearson's coefficient was statistically significant when serum calcium is correlated with NIHSS and MRS using ANOVA.

KEY WORDS: Ischemic stroke, diabetes mellitus, hypertension, NIHSS, MRS, Serum calcium.